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January 22, 1999

Ms. Magalie Roman Salas  
Office of the Secretary  
Federal Communications Commission  
445 12<sup>th</sup> Street, SW  
12<sup>th</sup> Street Lobby, TW-A325  
Washington, DC 20554

RECEIVED

JAN 22 1999

FEDERAL COMMUNICATIONS COMMISSION  
OFFICE OF THE SECRETARY

Re: Notification of *Ex Parte* Contact in ET Docket No. 98-206

Dear Ms. Salas:

On Friday, January 22, 1999, Northpoint Technology ("Northpoint") and its representatives met with Dan Connors, Legal Advisor to Commissioner Susan Ness to discuss experimental test results of Northpoint. Representing Northpoint were Sophia Collier, Catherine Reynolds, Mitchell Johnson of Northpoint, and Nancy Victory and Tom Dombrowsky of Wiley, Rein & Fielding.

The purpose of the discussion was to discuss experimental test findings concerning Northpoint's experimental license (FCC call sign WA2XMY). A handout was provided that has been included as an attachment hereto.

Should any questions arise concerning this *ex parte* notification, please contact the undersigned at (202) 719-7236.

Sincerely,



Thomas S. Dombrowsky, Jr.  
Engineering Advisor

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Enclosures:           Handout concerning experimental test results

cc:                     Dan Connors

## **Austin Urban Area Trials Demonstrate that Northpoint Does Not Cause Harmful Interference to DBS Customers**

During December 1998 the Northpoint system was operated in a 100 – 190 square mile area centered in downtown Austin, Texas. This is a highly populated area and home to several thousand DBS subscribers, according to estimates provided by the direct broadcast industry. Throughout the test period a “hotline” was maintained between the Northpoint transmitter site and DirecTV’s customer service call center to monitor any interference to the DBS subscribers. Not one call about interference attributable to Northpoint’s transmissions was received via this hotline or in any other manner. Northpoint operated successfully without harmful interference to DBS subscribers in heavy rain and throughout the day and night.

### **Thirty Sites Tested, None Experienced DBS Signal Failure**

To document the tests and learn more about the viability of the Northpoint system in an urban area, a total of 30 test sites were examined during the December test period. A uniform series of measurements were taken at each site in addition to special examinations made at particular sites. During these tests, there was not a single occurrence of DBS signal failure attributed to the normal operation of the Northpoint transmitter.

### **Worst Case Environments Sought Out for Testing**

This project has examined the issue of Northpoint to DBS interference in a real-world service area environment for a range of expected adverse conditions. Substantial testing was done in near range areas where the Northpoint signal is the strongest and special tests were done in the specific zones where there is theoretically the maximum interference potential for both DirecTV and Echostar service.

Special attention was given to the matters of multi-path propagation of the Northpoint signal, due to possible reflections from buildings and other structures -- an almost certain occurrence in an urban environment. Potentially adverse conditions were sought out and tested, and shown to have no adverse affect on the DBS service. Also, during the test period, a relatively wide range of weather conditions occurred, with ambient temperatures ranging from below freezing to over 70 degrees, with the skies varied from clear to heavy overcast and rain.

### **Consumer Set Top Box Tests Show Northpoint Did Not Effect Service Quality**

The DBS antenna pointing aid, also known as the ‘signal strength pointer’ (ssp), was used extensively to provide an indication of Northpoint’s effect on the DBS signal. In a small area, very close to the Northpoint transmitter, the ssp value was sensitive to the Northpoint signals. However, even at these worst case sites the DBS signals were of good integrity with no apparent problems.

In all cases, the NP effect is small, and did not impact the ability to receive a good quality signal. Most significantly, in all cases, and without any mitigation techniques, the ssp value was still above the recommended threshold given in the installation manual, and thus never impacted the margin required for reception. Furthermore, this small influence quickly diminishes to near zero as the DBS receiving site location moves away from the immediate vicinity of the Northpoint transmitter.

### **Multi-pathing Not a Problem**

Regarding secondary reflections of the Northpoint signal, it is noteworthy that, while testing numerous sites in the presence of strong reflections there were no indications of ill influence due to the reflections. This is true in all cases, even when the reflected signals illuminated the front side of the DBS antenna at various angles.

### **Northpoint is a Viable Technology**

In addition to the positive results obtained in regard to DBS interference considerations, the tests to examine the viability of Northpoint signal reception over the intended service area were very successful. These promising experiments included tests in which the Northpoint signal was seen through heavy foliage and under various weather conditions including rain. In addition, some sites as distant as almost 14 miles received a usable signal. It is clearly evident that the Northpoint signal as operated in this test could be suitable for service area coverage exceeding 10 miles.

This urban test further demonstrated that it is clearly reasonable to expect that the Northpoint technology can co-exist with the DBS satellite service without harmful interference to either service.

### **Spectrum Sharing Creates Unprecedented New Broadband Capacity for American Consumers**

This spectrum sharing can create unprecedented new bandwidth for American consumers – reharvesting the 500 MHz between 12.2 – 12.7 GHz on a terrestrial basis can provide 105 GHz of total spectrum capacity across the 211 television markets within the United States. This can be used to provide high quality digital television and internet access throughout the country in a very cost effective and practical manner using off-the-shelf equipment and existing set top boxes.

### **Cable Competition – A Multi Billion Dollar Benefit**

Based on its low cost and fast time to market, the Northpoint solution can stimulate cable competition with billions of dollars in benefit to American consumers.